

REMARKS

Claims 8; 9; 10; 11; 13; 14; 15; 16; 17; 18; 19; 29; 22; 23; 24; 26; 28; and 29 have been amended. Claims 12; 21; and 30 to 36 have been canceled. Claims 1 to 7 have been previously canceled.

Claims 8 to 11; 13 to 20; and 22 to 29 remain in the application. Of these, claim 8 is the sole independent system claim. Claims 23 to 29 are method claims dependent upon claim 8.

Claim 8 has been amended to define a system for treating a tissue region at or near a sphincter comprising an electrode structure comprising a plurality of tissue-piercing energy delivery devices for forming a lesion pattern in submucosal tissue at or near the sphincter, and a generator and pumping mechanism integrated in a housing for use in association with the electrode structure. A controller integrated in the housing is coupled to the generator and the pumping mechanism, to enable control of the generator to supply energy to the electrode structure to raise tissue temperature in the tissue region, in concert with operation of the pumping mechanism to supply cooling fluid to the tissue region to control the tissue temperature. A user interface includes at least one generator control input for receiving from an operator an input affecting operation of the generator and at least one pump control input for receiving from an operator an input affecting operation of the pumping mechanism. The user interface includes a first visual image displayed in association with the generator control input and a second visual image displayed in association with the pump control input, the first visual image being different than the second visual image. As further defined in amended claim 8, the first visual image includes a first visual indication of a tissue temperature condition adjacent each of the plurality of tissue-piercing energy delivery devices as energy is supplied to the electrode structure and, simultaneous with the first visual indication, a second visual indication of a running time condition reflecting a time period elapsed and/or remaining for supplying energy to the electrode structure relative to a targeted treatment period. Support for the subject matter defined in amended claim 8 can be found, e.g., on Specification pages 81 to 83 and Fig. 79. The first visual indication of a running time condition is described, e.g., on Specification page 83, lines 10 to 13 and in Fig. 79 (digital clock display CD).

In response to the Examiner's rejections under 35 U.S.C. § 112, dependent method claims 23; 24; 26; 28; and 29 have been amended to define steps of using the system as defined in amended claim 8.

The claims prior to amendment stand rejected based upon 35 U.S.C. § 102 and 103 based upon Hallock et al (US 6,235,022) alone or in various combinations with Cosman (US 6,241,725); Edwards et al (US 5,370,675); and Baker (US 6,197,022).

Hallock does not teach or suggest the system as defined in amended claim 8. Hallock does not teach or suggest, for an electrode structure comprising a plurality of a plurality of tissue-piercing energy delivery devices for forming a lesion pattern in submucosal tissue at or near a sphincter, a user interface that includes different first and second visual images displayed in association with, respectively, a generator control input and a pump control input, in which the first visual image includes a first visual indication of a tissue temperature condition adjacent each of the plurality of tissue-piercing energy delivery devices as energy is supplied to the electrode structure and, simultaneous with the first visual indication, a second visual indication of a running time condition reflecting a time period elapsed and/or remaining for supplying energy to the electrode structure relative to a targeted treatment period. Hallock does not teach or suggest simultaneously providing first and second visual indications of both temperature and time conditions. Hallock does not teach or suggest the system as defined amended claim 8, which provides the operator a time-based context for assessing temperature conditions relative to how much time has elapsed and/or how much time is remaining in relation to a time period targeted for treatment.

Cosman, also, does not teach or suggest the system as defined amended claim 8, which provides the operator a time-based context for assessing temperature conditions relative to how much time has elapsed and/or how much time is remaining in relation to a time period targeted for treatment. Cosman tracks temperature changes over time, but Cosman does not provide the added dimension relative to an entire time period allotted for treatment, in terms of allowing the operator to visually assimilate the different indications of both temperature and time conditions elapsed and/or remaining with respect to a targeted treatment period.

The tertiary references of Edwards and Baker may provide prior treatment strategies and devices, but neither teaches or suggests systems and methods that differentiate generator and pumping functions with different visual images, and which further provide a time-based context for assessing temperature conditions relative to how much time has elapsed and/or how much time is remaining in relation to a time period targeted for treatment.

Application Serial No. 10/024,747
Amendment F (Submitted with Request for Continued Examination)
Page - 8 -

Applicant believes that claims 8 to 11; 13 to 20; and 22 to 29, as amended, are in condition for allowance, which is respectfully requested.

Respectfully Submitted,

By


Daniel D. Ryan

Registration No. 29,243

RYAN KROMHOLZ & MANION, S.C.
Post Office Box 26618
Milwaukee, Wisconsin 53226
(262) 783 - 1300
Customer No.: 26308